

STATEMENT OF BASIS

PACIFICORP HUNTINGTON POWER PLANT MINOR INDUSTRIAL PERMIT NO. UT0025607

FACILITY CONTACT:

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GENERAL FACILITY INFORMATION:

Huntington Power Plant (HPP) is a 960 megawatt (MW) coal fired steam electric generation facility. The facility is located in Emery County, Section 1, Township 17 South, Range 7 East, approximately 6 miles northwest of Huntington, UT on Highway 31. The facility consists of two 480 megawatt generators. The Standard Industrial Code for the facility is 4911, *Electric Services, establishments engaged in the generation, transmission and/or distribution of electric energy for sale.*

RECEIVING STREAM: Huntington Creek is the receiving water body. It is classified as:

- 2B - protected for secondary contact recreation such as boating, wading or similar uses.
- 3A - protected for cold water species of game fish and other cold water aquatic life, including the necessary aquatic organisms in their food chain.
- 4 - protected for agricultural uses including irrigation of crops and stock watering.

DESCRIPTION OF FACILITY WASTEWATER DISCHARGE AND WATER USAGE:

Water for the steam generation process is withdrawn from Huntington Creek and stored on site in a raw water pond prior to use in the plant. This water is used for various plant activities including cooling water, boiler blowdown, and other various waste water activities as defined in 40 CFR Part 423. This water is then recycled or transferred to one of two evaporation ponds on the facility where it is stored during the winter months or until land application. This wastewater is land applied on crops from April to October to one of two farm areas. These discharges are regulated under a Groundwater permit UGW150002.

There is an additional pond on the site know as the "Duck Pond." The Duck Pond was constructed to collect stormwater runoff and naturally occurring spring water from an un-named local wash. Water in the wash is potentially impacted by groundwater contamination from the two ash landfills on the site. Discharge from the Duck Pond flows to the "Duck Pond Channel". The Duck Pond Channel collects additional spring water and groundwater and eventually discharges through a metal culvert into Huntington Creek. The flow from the duck pond was estimated to be 0.07472 MGD in all seasons. The

7Q/10 Critical low flow for Huntington Creek is 1.8 CFS (1.16 MGD) and is based upon data from the closest available STORET station.

All sanitary wastes from toilets and showers at the facility flow to a small wastewater treatment facility located near the northeast corner of the power plant. This package plant treats about 6000 gallons per day. This discharge from this treatment facility flows into a small holding pond/wetland area and then flows via gravity to the irrigation pond, where it is mixed with process water and spray irrigated onto the farm field found on the facility. The discharge from the spray irrigation is regulated under the groundwater permit. This outfall does not discharge into Waters of the State, but since there is potential for human and wildlife contact in the holding pond, secondary treatment standards for domestic wastewater will be required for this discharge.

BASIS FOR EFFLUENT LIMITATIONS: The effluent limitation guidelines for Huntington Power Plant are covered by 40 CFR 423 STEAM ELECTRIC POWER GENERATION POINT SOURCE CATEGORY. However, since the facility discharges no process water to Waters of the State, the effluent limitation guidelines do not apply. As a result, regulated pollutants were determined by best professional judgment based on the characteristics of the effluent. Total suspended solids (TSS) and pH limits are based upon Utah's secondary standards found in Utah Administrative Code (UAC) R317-1-3.2.

The Colorado River Salinity Control Forum, of which the State of Utah is a member, has established a no-salt return policy whenever practicable. This standard may be waived if the discharge is less than one ton per day for total dissolved solids (TDS) on those facilities discharging into tributaries of the Colorado River Basin. Therefore, Huntington Power Plant will be limited to a sum of one ton per day or a total of 366 tons per year of TDS from outfall 001. If this facility is unable to meet this requirement, a salinity offset project may be required.

No TDS concentration limit is being applied at this time. Based on the data supplied by the permittee, the TDS concentration and volume of the outfall relative to Huntington Creek is de minimus. Therefore, DWQ feels that the TDS limit/load put in place by the Colorado River Salinity Control Forum will be sufficiently protective of the environment. Additionally, the facility will also be conducting quarterly, acute whole effluent toxicity testing. This testing should also provide some additional protection as high levels of TDS will most likely be toxic to the organisms used in the test. The permit will contain a reopener clause for TDS that will be evaluated after sufficient discharge monitoring report data has been collected for the facility.

Visual observations for oil and grease in the effluent shall be made on a monthly basis. A sample for oil and grease shall be taken if a sheen is noted or some other observation indicates the presence of oil and grease. If a sample is taken as a result of a positive visual observation, it shall not exceed 20 mg/L for oil and grease. This 20 mg/L concentration is based on 40 CFR 423.

SELF MONITORING AND REPORTING REQUIREMENTS: All self monitoring requirements and discharge limits are based upon a wasteload analysis conducted by Dr. William Moellmer, Utah Division of Water Quality. Frequency of sampling, sampling type and units for all parameters in the permit are shown below:

Outfall 001

Parameters	Effluent Limitations Outfall 001 /a			
	Maximum Monthly Average	Maximum Weekly Average	Daily Minimum	Daily Maximum
TSS, mg/L	25	35	NA	NA
TDS, lbs/Day	Report	NA	NA	2000
Oil & Grease, yes = 0, no =1	NA	NA	NA	1
pH (Standard Units)	NA	NA	6.5	9.0

NA – Not Applicable

There shall be no visible sheen or floating solids or visible foam in other than trace amounts.

There shall be no discharge of sanitary wastes from outfall 001.

Self-Monitoring and Reporting Requirements Outfall 001 /a			
Parameter	Frequency	Sample Type	Units
Total Flow b/	Monthly	Measured	Gal/Min
TSS, Effluent	Monthly	Grab	mg/L
TDS, Effluent	Monthly	Grab	mg/L, lbs/Day
Oil & Grease c/	Monthly	Grab	Visual
pH	Monthly	Instantaneous	SU

a/ See Permit, Definitions, *Part IV* for definition of terms.

b/ If the rate of discharge is controlled, the rate and duration of discharge shall be reported.

c/ An oil and grease sample shall be taken if a visual sheen is observed on the effluent discharge. If an effluent sample is taken, as a result of a visual sheen, a grab sample shall be taken and oil and grease shall not exceed 20 mg/l in concentration.

The compliance point for Outfall 001 will be the metal culvert where the Duck Pond Channel discharges into Huntington Creek. All samples will be taken at this location.

Outfall 002

In addition to outfall 001, there will be an internal discharge point from a “package plant” that treats sanitary wastes from the facility. This discharge will be labeled Outfall 002. For compliance purposes, the compliance point from the package plant will be taken from the PVC pipe where the

package plant discharges into the holding pond/wetland area.

Effluent Limitations Outfall 002				
Parameter	Maximum Monthly Average	Maximum Weekly Average	Daily Minimum	Daily Maximum
BOD5, mg/L	25	35	NA	NA
Total Suspended Solids	25	35	NA	NA
pH	NA	NA	6.5	9.0
E. Coli, #/100mL	126	157	NA	NA

Self-Monitoring and Reporting Requirements Outfall 002			
Parameter	Frequency	Sample Type	Units
BOD5	1 x Month	Grab	mg/L
Total Suspended Solids	1 x Month	Grab	mg/L
pH	1 x Month	Instantaneous	SU
E. Coli	1 x Month	Grab	no./100mL
Flow	Monthly Avg. and Monthly Max.	Continuous	GPM

PRETREATMENT REQUIREMENTS: Huntington Power Plant discharges no water to a sanitary sewer either as a direct discharge or as a hauled waste. Therefore they are not subject to federal, state or local pretreatment regulations, pursuant to Section 307 of the Clean Water Act

TMDL SECTION: A TMDL for Huntington Creek below Highway 10 was approved by the U.S. Environmental Protection Agency on August 4, 2004. This TMDL addresses impairment due to total dissolved solids. A site specific criteria (SSC) of 4,800 mg/L was assigned to Huntington Creek downstream of Highway 10 due to unalterable conditions. Huntington Creek and it's tributaries upstream of Highway 10 retained the 1,200 mg/L State of Utah water quality standard for TDS as described in R317-2.

BIOSOLIDS (SEWAGE SLUDGE)

Description Of Treatment And Disposal

The Huntington Power Plant is expected to dispose of approximately ten to fifteen dry metric tons (DMT) of wastewater solids (sewage sludge) per year. The wastewater solids will be treated with a "batch plant". The plant stabilizes the solids through an activated sludge process. It consists of six cells, with four treating the solids. The mean cell residence time is less than 2 days. The

treated solids will be de-watered with drying beds. All sludge from the Huntington Power Plant will be disposed of in the industrial landfill located at the Huntington Power Plant.

Solids Monitoring Requirements

Under *40 CFR 503* solids are not required to be monitored for heavy metals content or pathogen reduction if the solids are disposed in a landfill.

Landfill Monitoring

Paint Filter Test

Under *40 CFR 258*, landfill monitoring requirements, the solids will need to pass a paint filter test before the solids are disposed of in a landfill. If the solids do not pass a paint filter test, the solids cannot be disposed in a landfill.

Vector Attraction Reduction Monitoring

Under *40 CFR 503.33*, the solids need to meet a method of vector attraction reduction (VAR). Since the solids will be disposed of at the Huntington Power Plant Industrial Landfill, the Huntington Power Plant will need to ensure that the solids are covered daily with soil or another approved material. If the solids are not covered daily, the solids cannot be disposed in the landfill.

Minimum Frequency of Monitoring	
Amount of Solids Disposed Per Year	Monitoring Frequency
> 0 to < 290, DMT	Once per year

Since the HPP is not expected to produce more than 290 DMT of solids per year, the HPP will be required to monitor at least once per year for the paint filter tests.

Record Keeping

The record keeping requirements from *40 CFR 503.17* are included under *Part III.F.* of the permit. Since the solids are disposed in a landfill the disposal records need to be retained for a minimum of five years.

Reporting

The HPP needs to submit an annual solids report as required in *40 CFR 503.18*. This report is to include the results of all solids monitoring performed in accordance with *Part III.C.* of the permit, information on management practices, solids treatment, and certifications. This report is due no later than February 19th of each year. Each report is for the previous calendar year.

WHOLE EFFLUENT TOXICITY TESTING: As part of a nationwide effort to control toxic discharges, biomonitoring requirements are being included in permits for facilities where effluent toxicity is an existing or potential concern. In Utah, this is done in accordance with the State of Utah Permitting and Enforcement Guidance Document for Whole Effluent Toxicity (WET) Control (Biomonitoring (2/1991)). Authority to require effluent biomonitoring is provided in UAC R317-8, Utah Pollutant Discharge Elimination System and UAC R317-2, Water Quality Standards.

Huntington Power Plant is a minor industrial facility that discharges stormwater and spring water, in which toxicity is not likely to be present. However, since this is a new permit, quarterly biomonitoring for both acute and chronic toxicity will be required for a minimum of two (2) years. If the results for two years of testing indicate no toxicity, the permittee may request an elimination of testing or a reduction in testing frequency and/or reduction to one species.

STORM WATER REQUIREMENTS: The Huntington Power Plant currently has a UPDES General Industrial Stormwater Permit, Sector O “*Stormwater Discharges Associated With Industrial Activities From Steam Electric Power Generation Facilities, Including Coal Handling Areas.*” The permit number for this permit is UTR000081. Upon issuance of this permit, coverage under the General Permit will cease and all stormwater requirements for the facility will be covered under this permit. The facility can continue to use the existing Stormwater Pollution Prevention Plan and best management practices.

Statement of Basis and permit drafted by Lonnie Shull, Environmental Scientist,
Division of Water Quality,
Drafted July 25, 2006.
Updated 8/3/2006
Updated 8/17/2006